Fig. 1

Inhibition effects of anti-HIV agents of the present invention on the syncytium formation of non-infected cells co-cultured with infected cells

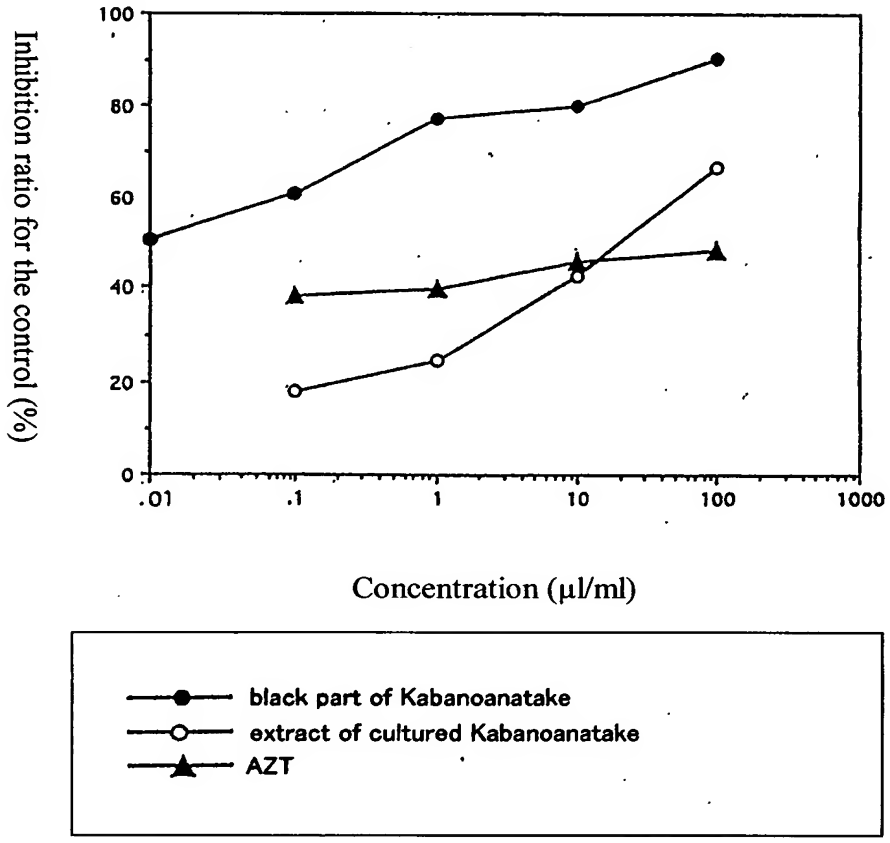


Fig. 2

Inhibition effects of anti-HIV agents of the present invention on HIV production by PHA-stimulated peripheral blood mononuclear cells that was made to be newly infected.

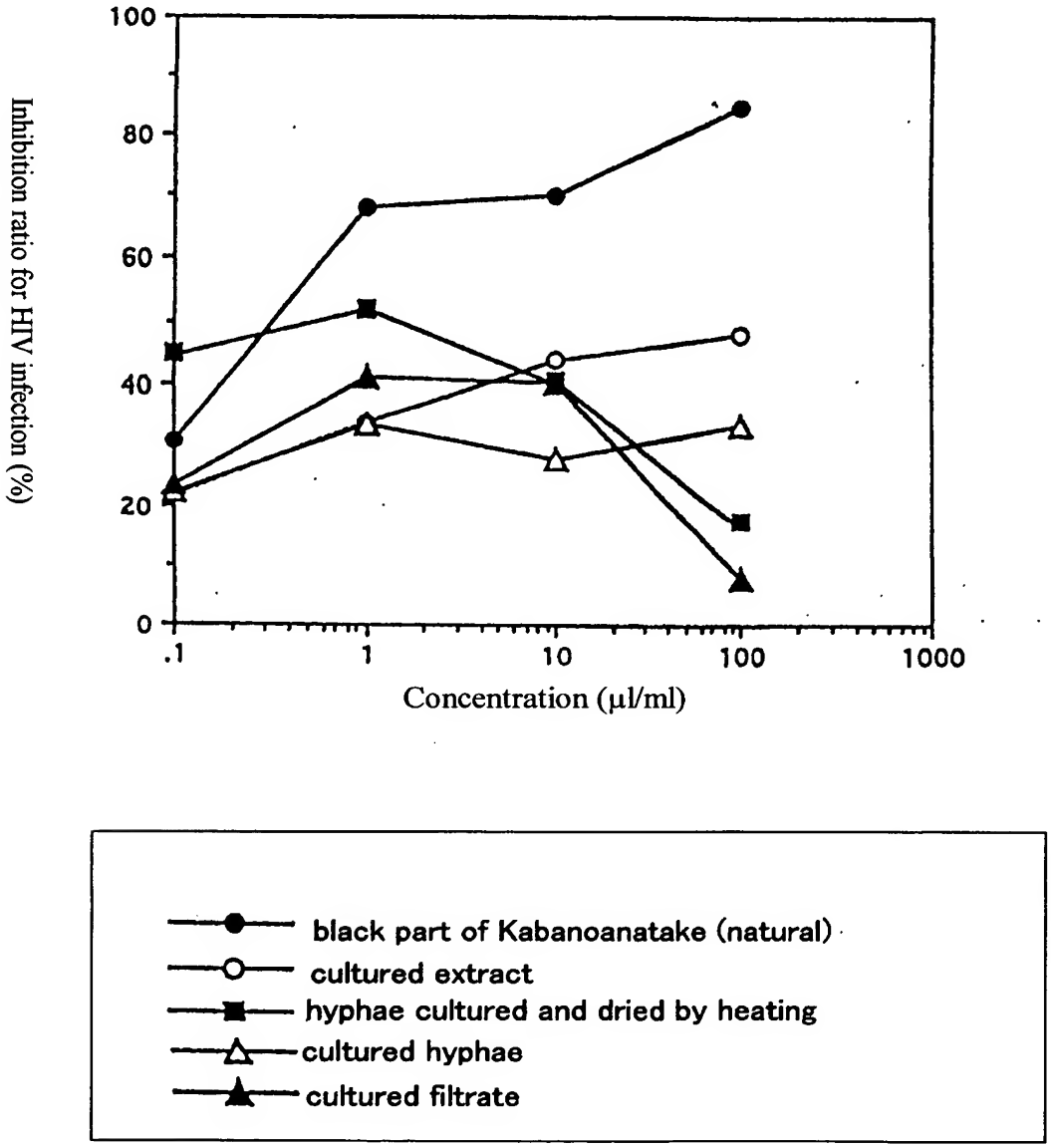


Fig. 3

Number of viable cells

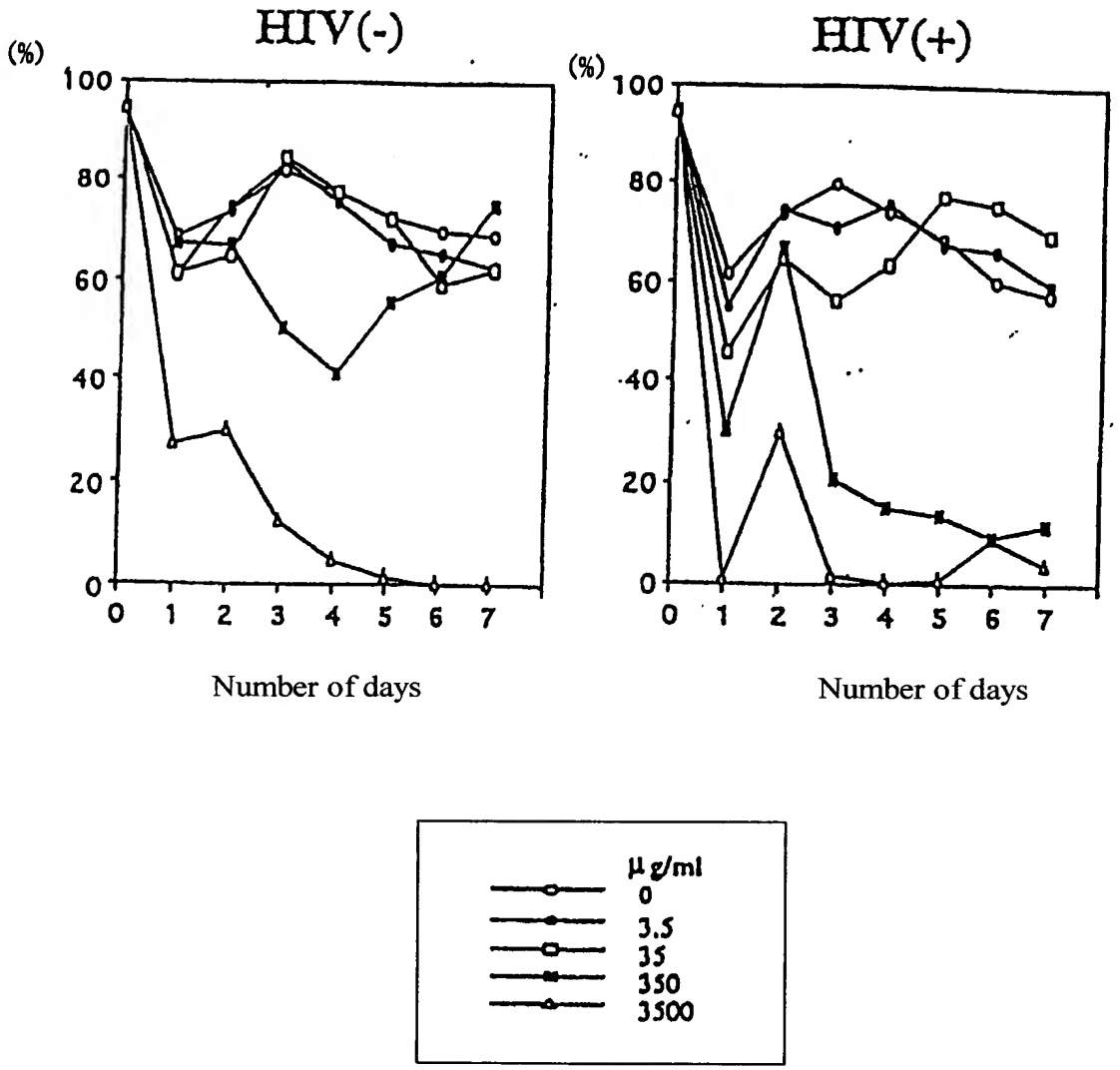


Fig. 4

ELISA test for HIV P24 antigen yield

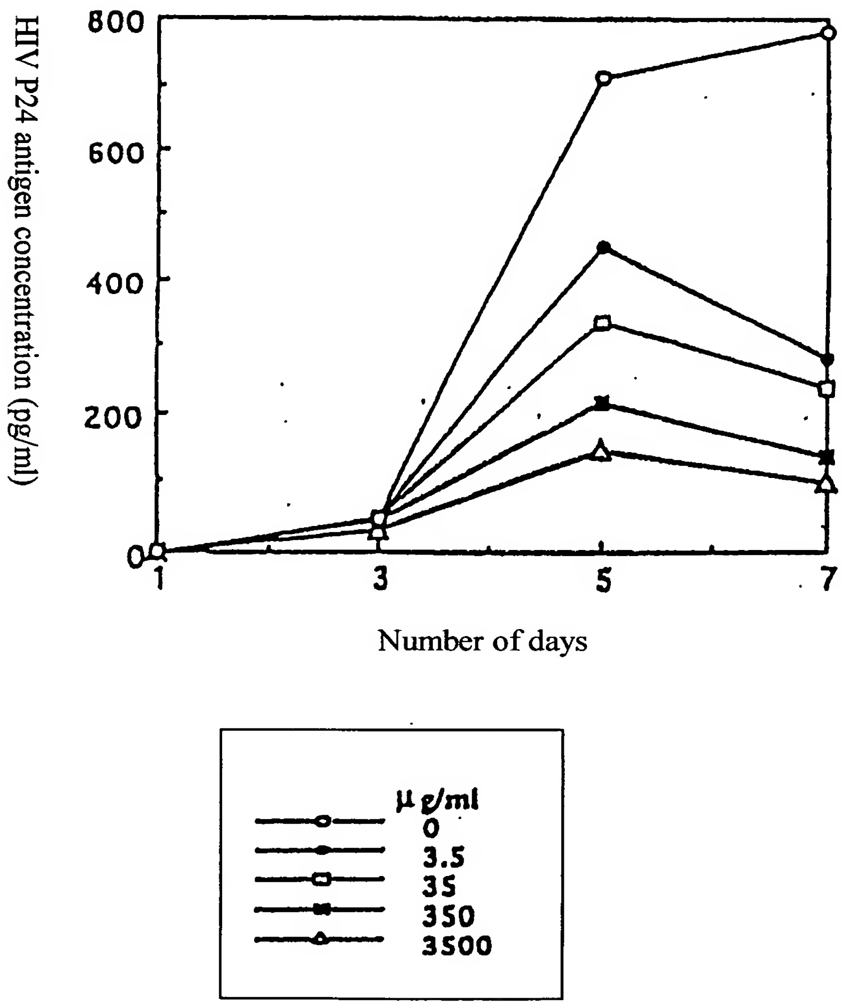
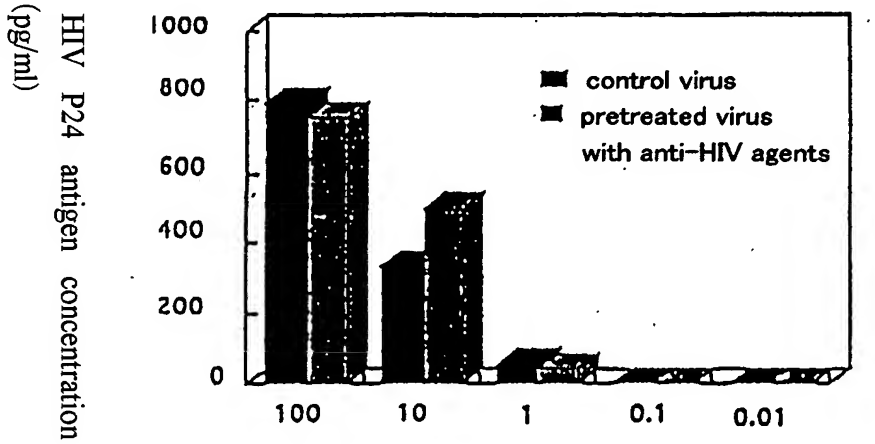


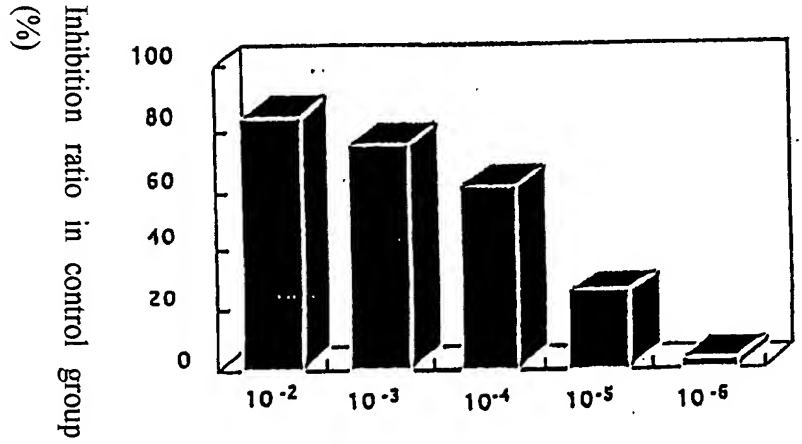
Fig. 5

Anti-HIV effects of pretreated PHA-stimulated peripheral blood mononuclear cells with Kabanoanatake

A The effects of pretreatment HIV with Kabanoanatake



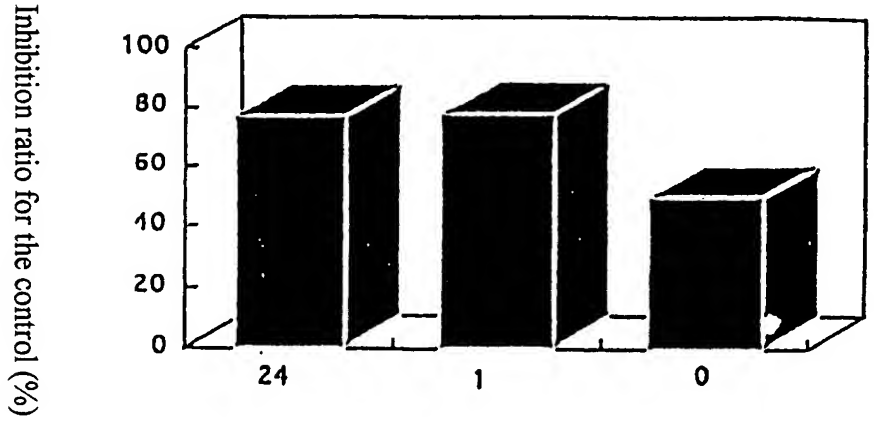
B The effects of target cell pretreatment with Kabanoanatake



* The anti-HIV agents were prepared in PBS solution at the concentration of 3.5 mg/ml.

Fig. 6

A The effects of pretreatment of target cells with Kabanoanatake



B The effects of addition of Kabanoanatake in various incubation time after target cells pretreatment with anti-HIV agents for approximately one hour

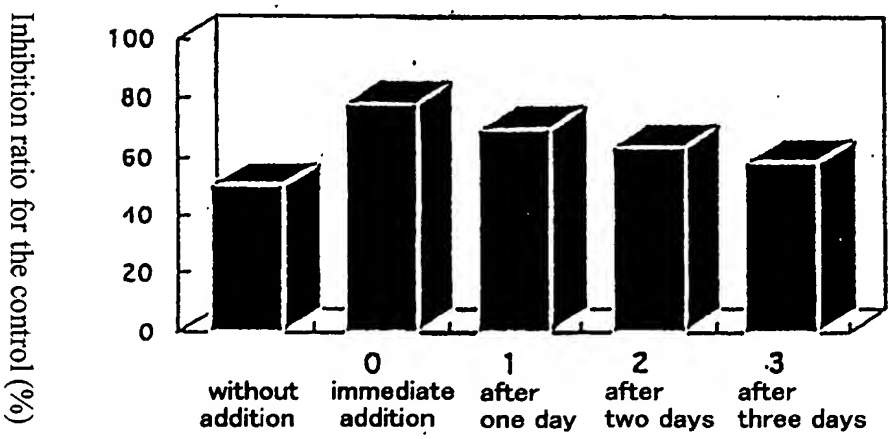
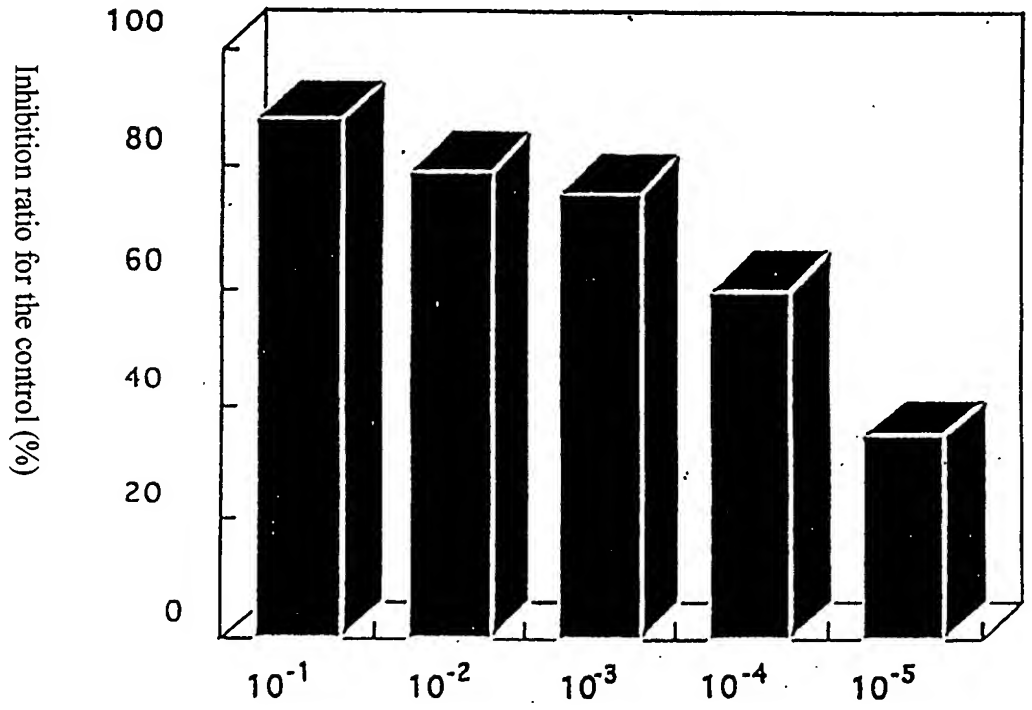


Fig. 7

Inhibition effects of anti-HIV agents of the present invention on the syncytium formation of non-infected cells co-cultured with infected cells



* The anti-HIV agents were prepared at the concentration of 3.56 mg/ml.

Fig.8

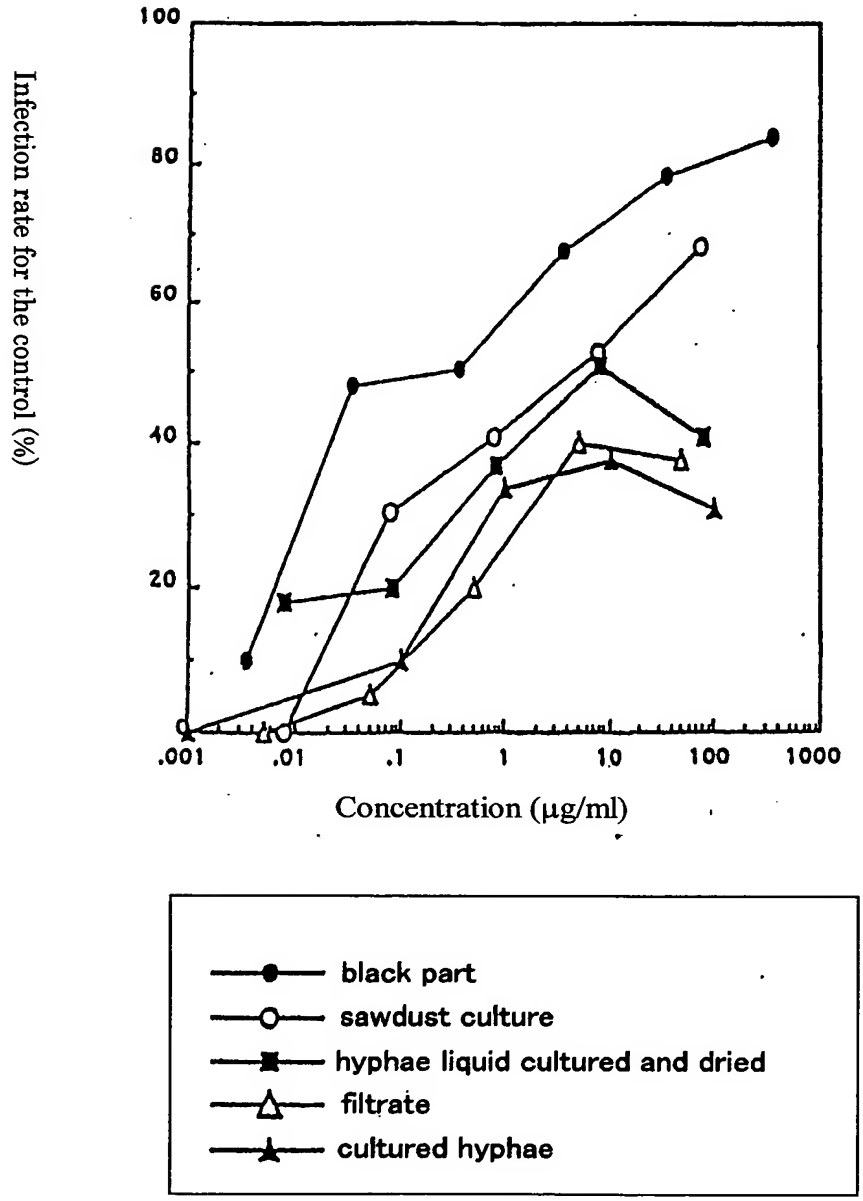


Fig. 9

Inhibition effects of various Kabanoanatake of the present invention on the syncytium formation of non-infected cells co-cultured with infected cells

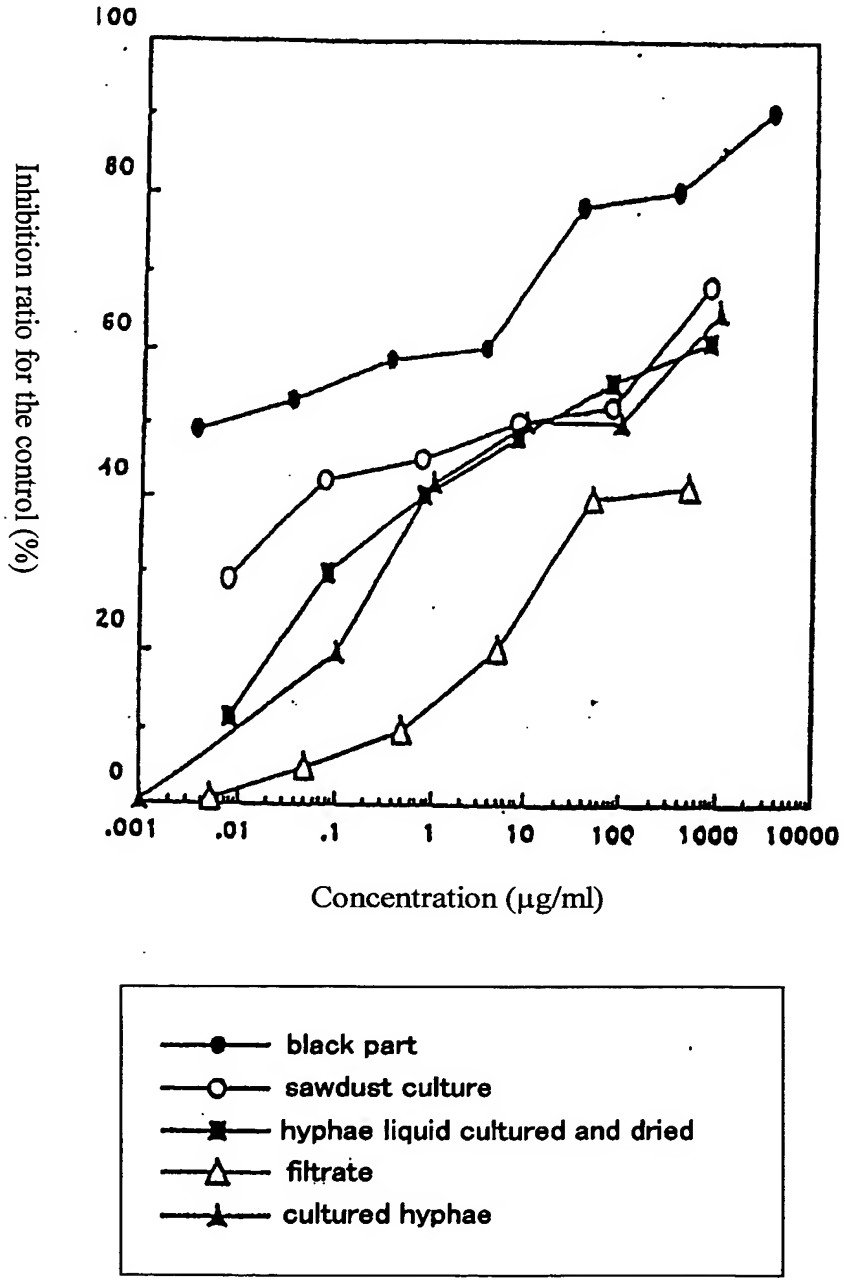


Fig. 10

Report of separation of HIV

July, 18th, 1995

Day of receipt of samples: June, 14th, 1995

(1) Tissue culture infectious dose (TCID)

Total TCID (/ ml)	0
Cell TCID (/1×10⁶)	0
Plasma TCID (/ ml)	0
Cytopathic effect	0

(2) Anti-HIV antibody in plasma by western blotting methods.

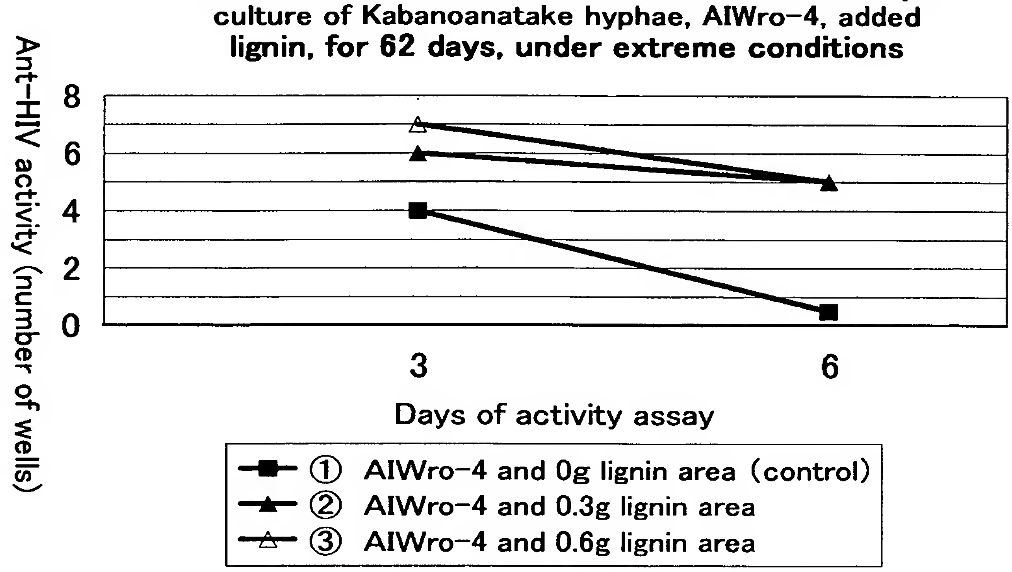
gp160 (env)	gp120 (env)	p65 (pol)	p55 (gag)	p51 (pol)	gp41-43 (env)	p32 (pol)	p24 (gag)	p18 (gag)	p15 (gag)
++	++	++	++	++	++	++	++	++	++

(3) Host range index

(Correspondence column) The virus was not isolated.

(Annotation) In also a blood test after three months for the same patient, TCID value was excellent (zero).

Fig.11 Perfect inhibition effects on HIV, in a liquid culture of Kabanoanatake hyphae, AIWro-4, added lignin, for 62 days, under extreme conditions



* The well number below 1means that perfect inhibition effects on HIV is not obtainable.

Fig.12 Cell damage in a liquid culture of Kabanoanatake hyphae, AIW ro-4, when lignin was added

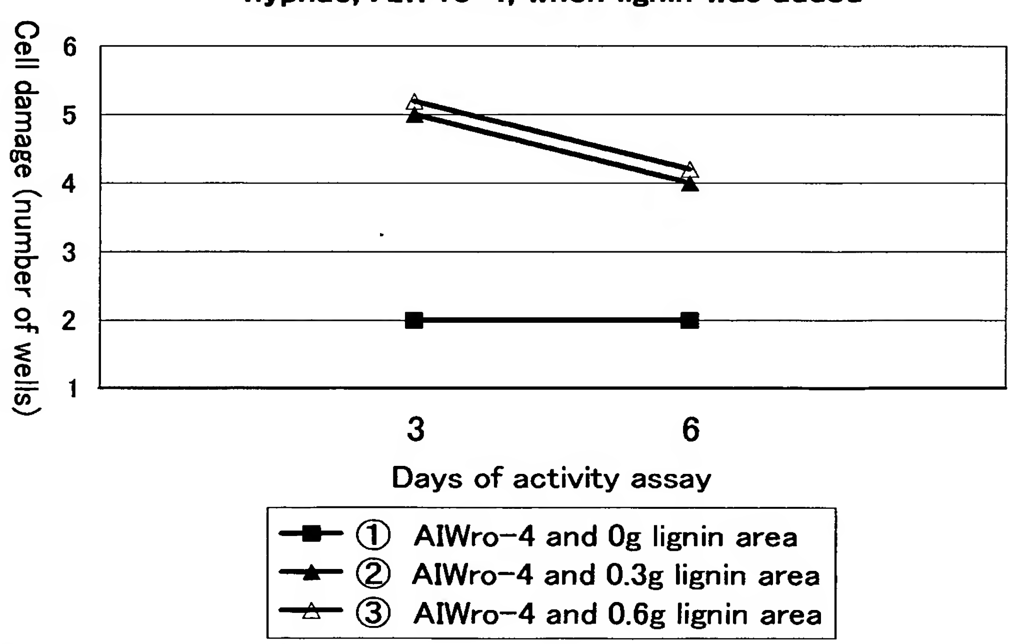
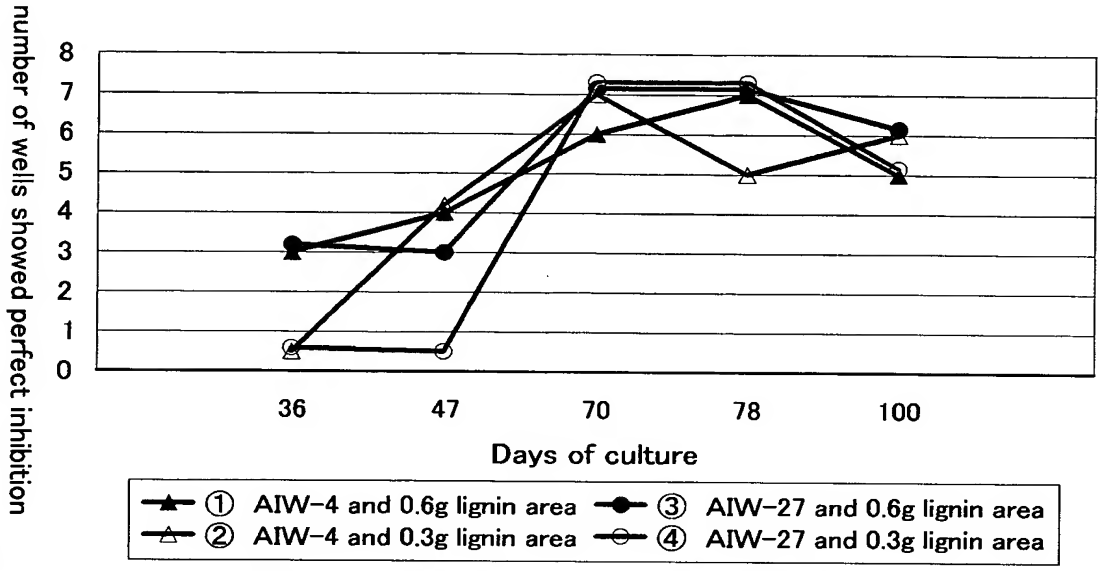
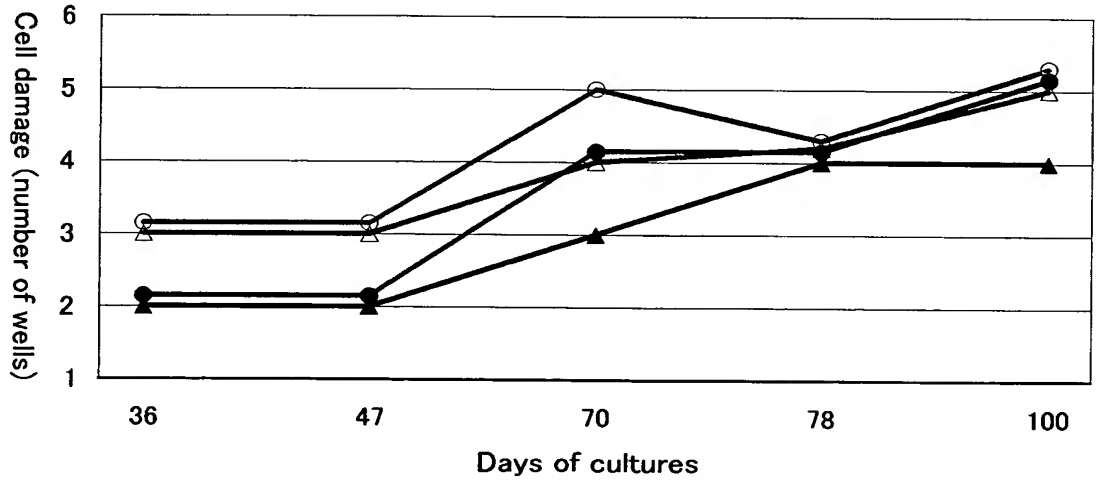


Fig.13 Perfect inhibition effects on HIV in a long-term culture medium of Kabanoanatake hyphae, AIW-27, AIW-4, and lignin, under extreme conditions of restricting the infiltration of oxygen (on the 6th day of the test)



*Culture temperature of diurnal time was 33℃ and culture temperature of nighttime was falling to 8℃ to 10 ℃.
Shaking time was limited to 11 hours per 24 hours.

Fig.14 Cell damage in a liquid culture of Kabanoanatake hyphae, AIW-4 and AIW-27, when lignin was added



*Culture temperature of diurnal time was 33℃ and culture temperature of nighttime was falling to 8℃to 10℃.
Shaking time was limited to 11 hours per 24 hours.

Fig.15 Perfect inhibition effects on HIV in a liquid culture of Kabanoanatake hyphae, A-2W- 3 for 34 days, added lignin, under extreme conditions

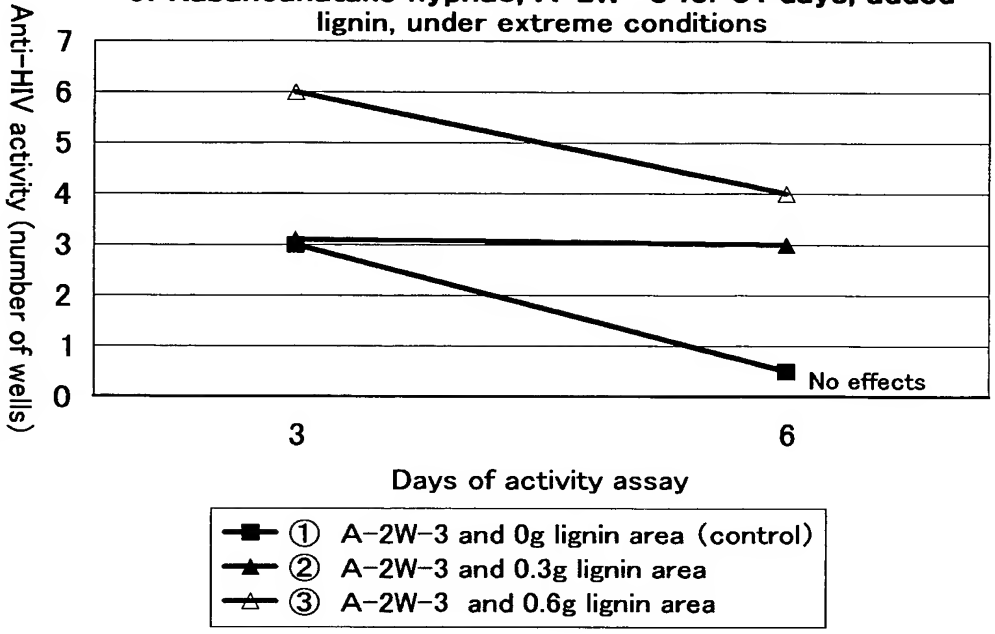
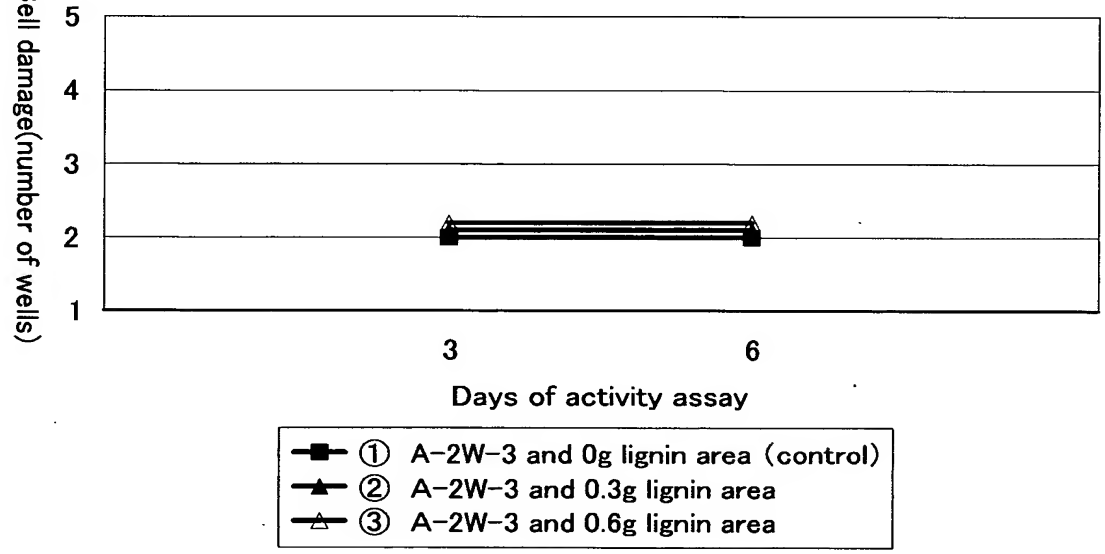
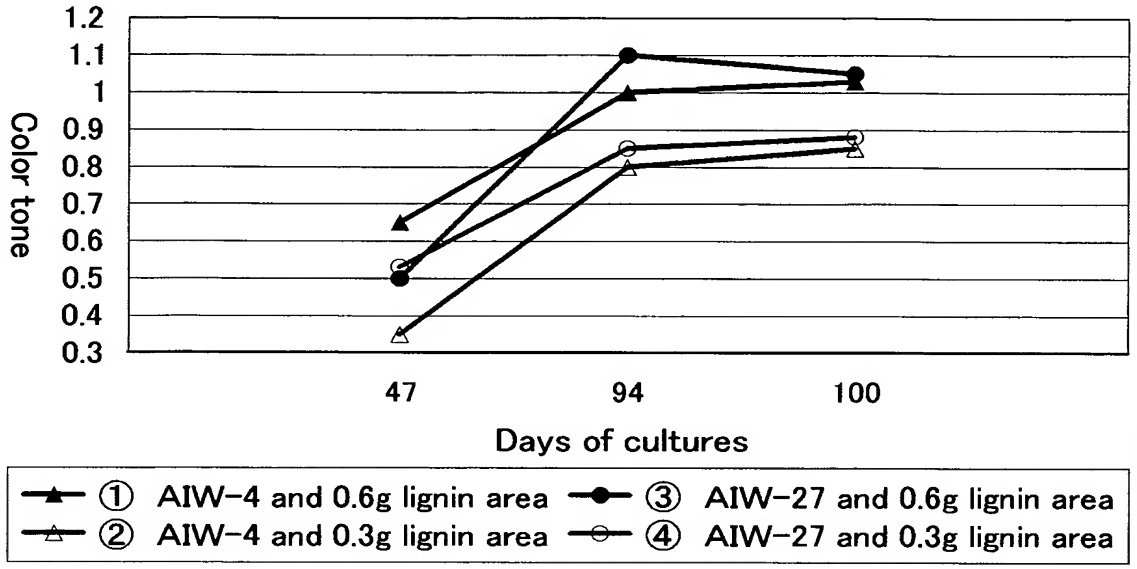


Fig.16 Cell damage in a liquid culture of Kabanoanatake hyphae, A-2W-3, for 34 days, in the area added lignin, under extreme conditions



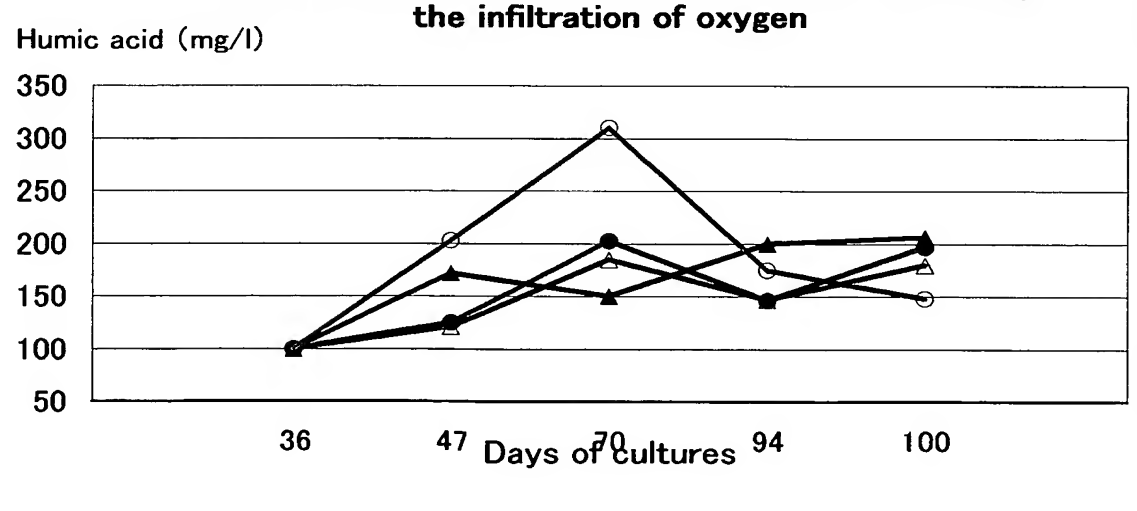
* The lines of ①,② and③ are the same values, so they are overlapped.

Fig.17 Change in black color tone (500 nm) in a long-term culture test of Kabanoanatake, restricting the infiltration of oxygen



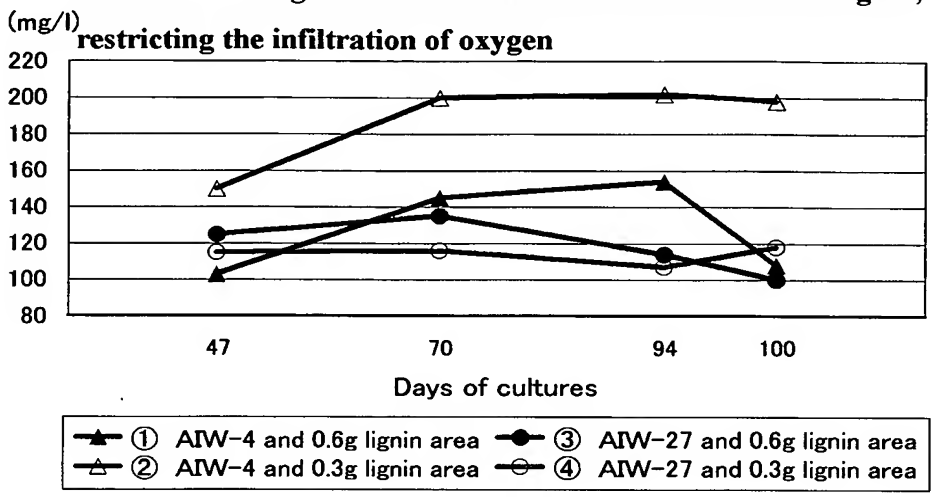
*The control group (0 g lignin area) for AIW- 4 and AIW-27 were excluded because of growth cessation

Fig. 18 Change in humic acid in a culture medium of Kabanoanatake, under extreme conditions of restricting the infiltration of oxygen



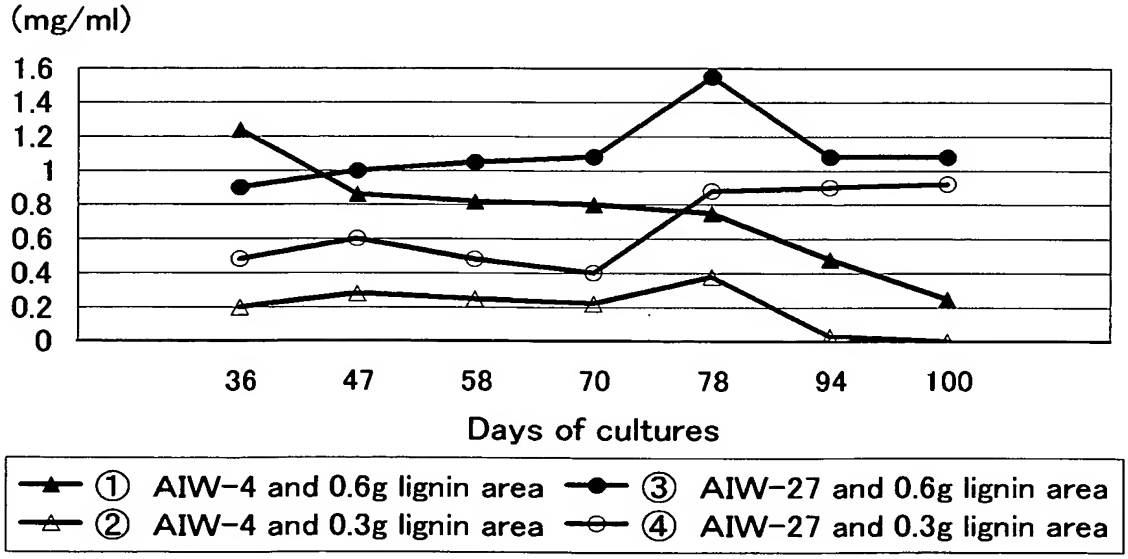
*The control group (0 g lignin area) for AIW-4 and AIW-27 were excluded because of growth cessation.

Fig.19 Correlation between the amount of lignin-tannin and days of cultures in a long-term culture of Kabanoanatake added lignin, restricting the infiltration of oxygen



*The control group (0 g lignin area) for AIW-4 and AIW-27 were excluded because of growth cessation

Fig.20 Change in protein amount in a long-term liquid culture test of Kabanoanatake, added lignin, under extreme conditions of restricting the infiltration of oxygen



*The control group (0 g lignin area) for AIW-4 and AIW-27 were excluded because of growth cessation

Fig.21 Perfect inhibition activity (cells) on HIV, on the 110th day of a liquid culture of Kabanoanatake hyphae, A to E, at the ideal temperature for culture of 25℃

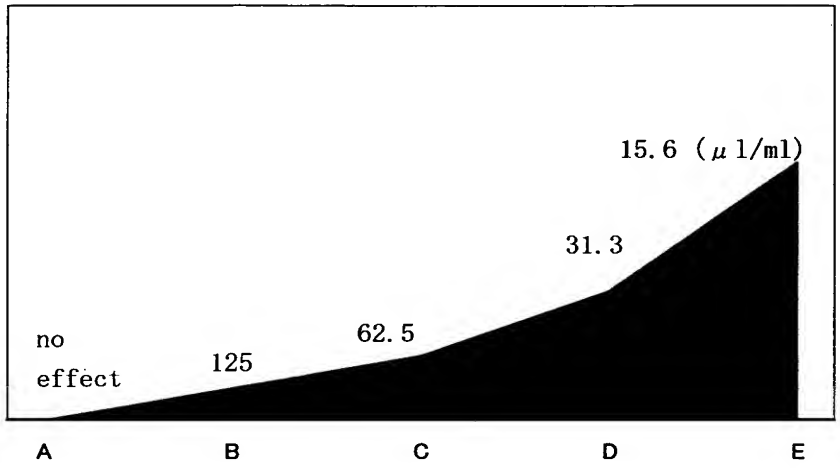


Fig.22 The values of perfect HIV inhibition activity (100%) on the 110th day of a liquid culture of Kabanoanatake hyphae, A to E, at the ideal temperature for culture of 25℃

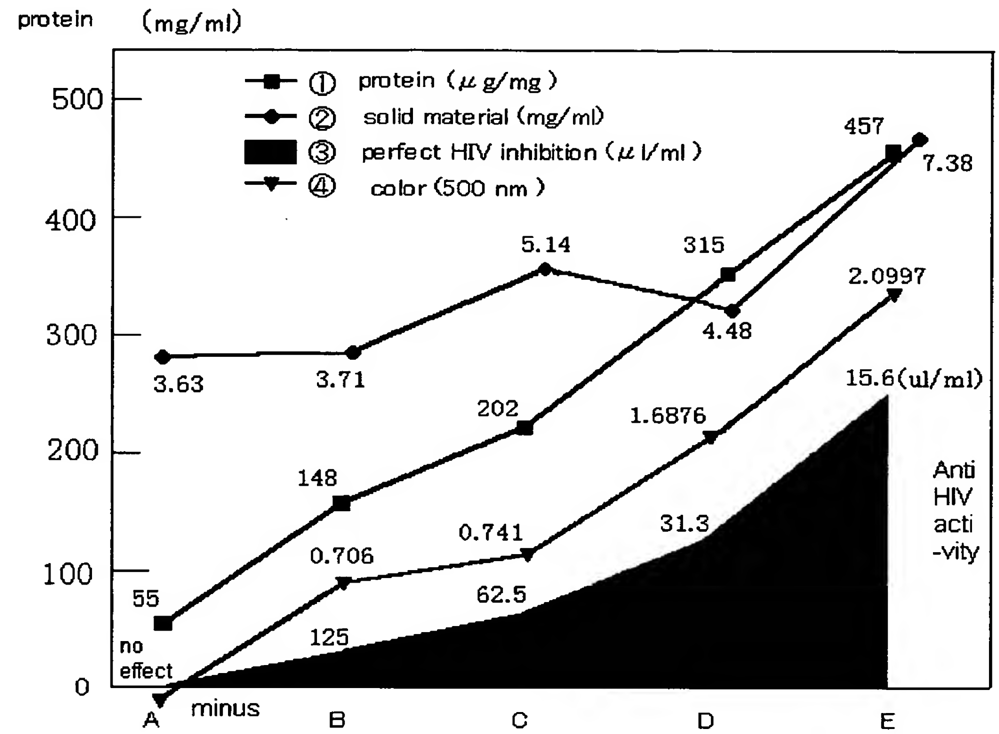


Fig.23 Change in protein content in a liquid culture of hyphae, AIW-4, added lignin substances (lignosulfonic acid sodium salt acetate and lignosulfonic acid sodium salt)

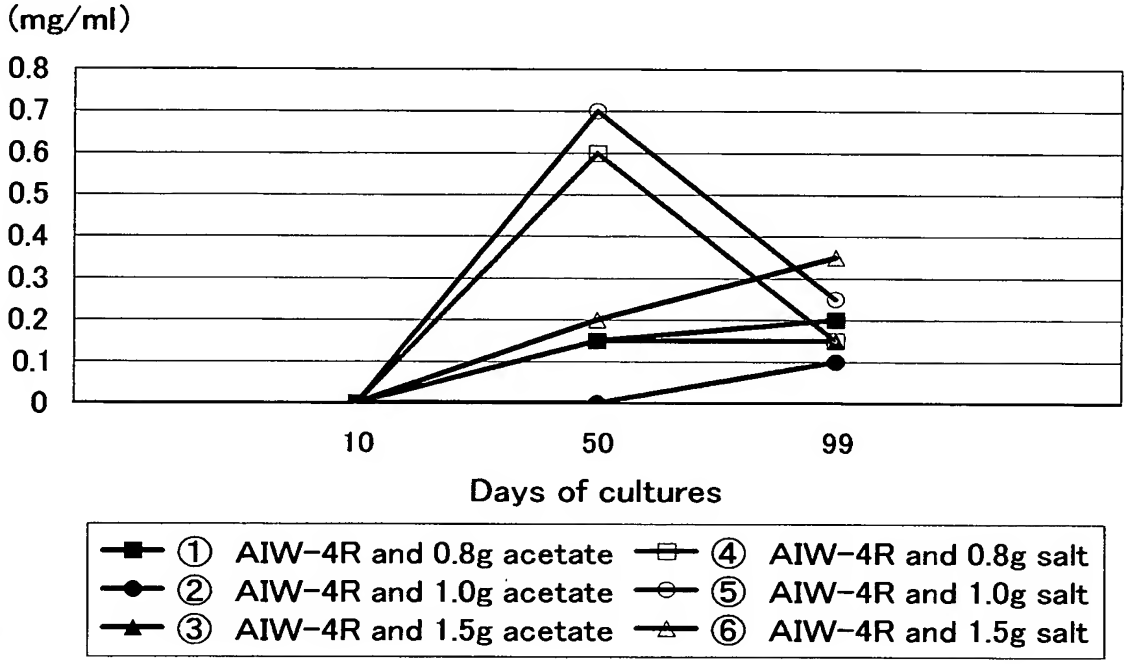


Fig. 24 Change in protein content in a liquid culture of Kabanoanatake hyphae, A2W-3 and 58-1, when a lignin substance was added